

APPENDIX H

LARA Model Agricultural Resources Analysis

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Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

1.0 INTRODUCTION

The County of San Diego's guidelines for determining the importance of agricultural resources are summarized in the Local Agricultural Resource Assessment (LARA) model. The LARA model was developed to assess the relative value of agricultural resources specific to San Diego County. The LARA model takes into account water, climate, soil quality, surrounding land uses, land use consistency and topography. The LARA model considers soils, climate and water as primary model factors while also considering the presence of Williamson Act Contracts, other preserved lands, and existing land uses in the surrounding area as complimentary factors. The land use consistency factor takes into account parcelization patterns while the presence of existing agricultural use and cropping history is considered because these factors amount to those that define agricultural resources.

2.0 AGRICULTURAL ANALYSIS

As mentioned above, the LARA Model contains six factors when evaluating the importance of agricultural resources which include three required factors (water, climate and soil quality) and three complementary factors (surrounding land uses, land use consistency and topography). Each of these factors is evaluated independently and is provided with a high, moderate or low rating score in accordance to the LARA model guidelines.

2.1 Water

The water rating is based on a combination of a site's County Water Authority (CWA) service status, the underlying groundwater aquifer type and the presence of a groundwater well. The project site is located within the San Diego County Water Authority's service area. The underlying groundwater aquifer type consists of an alluvial aquifer. There are no groundwater wells located within or adjacent to the proposed project site. It is assumed that infrastructure connections and a meter are available at the site due to the existing facility located within the project boundary. Therefore, according to *Table 1, LARA Model Water Rating*, the Las Colinas Project water rating score is considered to be high.

Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

Table 1
LARA Water Rating

County Water Authority (CWA) Service Status	Groundwater Aquifer Type and Well Presence	Rating
Inside CWA service area with existing water infrastructure connections and a meter	Any groundwater aquifer type	High
Inside CWA service area with infrastructure connections to the site, but no meter has been installed	The site is located in an Alluvial or Sedimentary Aquifer and has an existing well	High*
	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Moderate*
	The site is located on Fractured Crystalline Rock and has an existing well	Moderate*
	The site is located on Fractured Crystalline Rock, but has no existing well	Low*
Outside CWA or inside CWA but infrastructure connections are not available at the site and no meter is installed	The site is located in an Alluvial or Sedimentary Aquifer and has an existing well	Moderate*
	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Low*
	The site is located on Fractured Crystalline Rock (with or without a well)	Low*
	The site is located in a Desert Basin (with or without a well)	Low*

* These water ratings may be reduced based on available groundwater quantity and quality information, in accordance with the Groundwater Availability and Quality Effects on Water Rating Table. If no additional groundwater quantity or quality data is available, the ratings above shall apply.

2.2 Climate

The project site is located within Climate (Sunset Zone) 23. According to the LARA Model, Zone 23 represents thermal belts of the coastal area climate and is one of the most favorable for growing subtropical plants and most favorable for growing avocados. Zone 23 occurs in coastal incorporated cities and also occurs in the unincorporated communities of Fallbrook, Rainbow, Bonsall, San Dieguito, Lakeside, western portions of Crest and Valle De Oro, Spring Valley, Otay, and western portion of Jamul-Dulzura. Zone 23 is rated high because this climate zone is the most favorable for growing some of the County's most productive crops. Year round mild temperatures allow year round production and the proximity to urban areas and infrastructure facilities efficient delivery to market.

2.3 Soil Quality

Table 2, *LARA Soil Quality Matrix* identifies the types of soil located within the project site, the quantity of each soil type and the quality of soil available for agricultural use. The soil quality matrix score is 0.41 which according to Table 3, *LARA Model Soil Quality Matrix Interpretation*, the quality of the soil available for agricultural use within the project site is considered moderate.

Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

Table 2
LARA Soil Quality Matrix

	Soil Type	Size of project site (acreage)	Unavailable for agricultural use	Available for agricultural use	Proportion of project site	Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)	Multiply Column E x Column F
ROW 1	VaA	4.6	0	4.6	0	1	0
ROW 2	Rm	1.4	0	1.4	0	0	0
ROW 3	GoA	39.5	23.3	16.2	0.41	1	0.41
ROW 4							
ROW 5							
ROW 6							
ROW 7							
ROW 8							
ROW 9							
ROW 10							
ROW 11							
ROW 12							
ROW 13							
Total		45.5	23.3	22.2	Soil Quality Matrix Score		
							0.41

Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

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Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

Table 3
LARA Soil Quality Matrix Interpretation

Soil Quality Matrix Score	Soil Quality Rating
The site has a Soil Quality Matrix score ranging from 0.66 to 1.0 and has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	High
The site has a Soil Quality Matrix score ranging from 0.33 to 0.66 or the site has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	Moderate
The site has a Soil Quality Matrix score less than 0.33 and does not have 10 acres of more of contiguous Prime Farmland or Statewide Importance Soils	Low

2.4 Surrounding Land Use

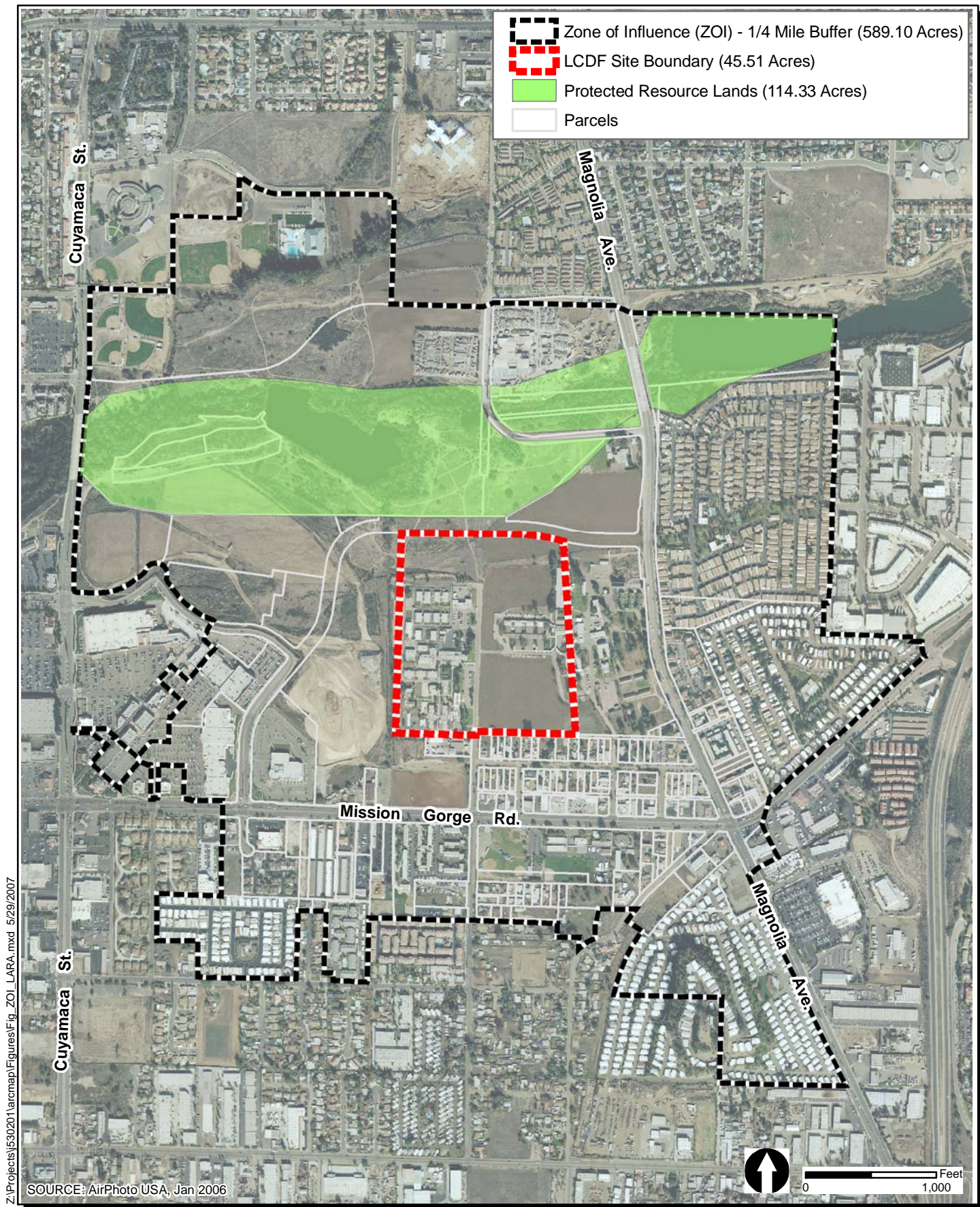
- 1) The total acreage of land compatible with agricultural use within the defined zone of influence (ZOI) amounts to 114.3 acres. Lands compatible with agricultural use have been identified as Protected Resources Lands on *Figure 1*, which consist of open space lands associated with the San Diego River. It should be noted that there are no Williamson Act Contract lands or Important Farmlands (including Prime Farmland, Farmlands of Statewide Importance, Unique Farmlands, or Farmlands of Local Importance) located within or adjacent to the project site or the project's ZOI. (According to personal conversation with County staff (Campos 2007) developed parks such as baseball fields are not to be counted as park lands for inclusion in the Protected Resource Lands.)
- 2) The total amount of land located within the ZOI consists of 589.1 acres.
- 3) The percentage of acres within the project's ZOI that is compatible with agricultural use (114.3/589.1) equals 0.19 or 19%.
- 4) As identified in *Table 4, LARA Surrounding Land Use Rating*, the surrounding land use rating for the project site is considered low.

Table 4
LARA Surrounding Land Use Rating

Percentage of Land within ZOI that is Compatible with Agriculture	Surrounding Land Use Rating
50% or greater	High
Greater than 25% but less than 50%	Moderate
25% or less	Low

Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

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Las Colinas Detention Facility LARA
Agricultural Resources - Zone of Influence

FIGURE
1

Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

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2.5 Land Use Consistency

- 1) There is only one parcel within the project site, therefore no median or average is provided. The parcel in which the project is located within consists of 66.2 acres.
- 2) The median parcel size of the parcels located within the project's ZOI consists of 0.3684 acres.
- 3) According to *Table 5, LARA Land Use Consistency Rating*, since the projects median parcel size is larger than the median parcel size within the project's ZOI by 10 or more, the land use consistency rating for the project site is considered low.

Table 5
LARA Land Use Consistency Rating

Project's median parcel size compared to ZOI median parcel size	Land Use Consistency Rating
The project's median parcel size is smaller than the median parcel size within the project's ZOI	High
The project's median parcel size is up to ten acres larger than the median parcel size within the project's ZOI	Moderate
The project's median parcel size is larger than the median parcel size within the project's ZOI by ten acres or more	Low

2.6 Slope

The average slope for the project site that is available for agricultural use is less than 3%. Therefore, according to *Table 6, LARA Slope Rating*, the project site consists of a high slope rating.

Table 6
LARA Slope Rating

Average Slope	Topography Rating
Less than 15% slope	High
15% up to 25% slope	Moderate
25% slope and higher	Low Importance

3.0 CONCLUSION

A summary of the Las Colinas Project ratings is provided below in *Table 7, Project Rating Results*.

Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

Table 7
Project Rating Results

	Rating Factor	LARA Rating Results
Required Factors	Water	High
	Climate	High
	Soil Quality	Moderate
Complementary Factors	Surrounding Land Uses	Low
	Land Use Consistency	Low
	Topography	High

The County of San Diego has created the following table to interpret the LARA Model results in determining the agricultural importance of the site. According to *Table 8, Interpretation of LARA Model Results*, the LARA model interprets the project site as not consisting of an important agricultural resource.

Table 8
Interpretation of LARA Model Results

LARA Model Results			LARA Model Interpretation
Possible Scenarios	Required Factors	Complementary Factors	
Scenario 1	All three factors rated high	At least one factor rated high or moderate	This site is an important agricultural resource
Scenario 2	Two factors rated high, one factor rated moderate	At least two factors rated high or moderate	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low importance	N/A	This site is not an important agricultural resource
Scenario 6	All other model results		

4.0 REFERENCES

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Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

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Local Agricultural Resource Assessment Model for the Las Colinas Detention Facility Project

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